



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

PATENT APPLICATION

Inventor(s): Francis McCormick )  
SC/Serial No.: 08/484,938 )  
Filed: June 7, 1995 )  
Title: Cytopathic Viruses for Therapy )  
and Prophylaxis of Neoplasia )

**RECEIVED**  
**JUL 28 1997**  
**GROUP 1820**

DECLARATION OF CHRISTOPHER MAACK  
UNDER 37 C.F.R. §1.132

I, Christopher Maack, declare that:

1. I am presently Director, Regulatory Affairs and Clinical Operations at ONYX Pharmaceuticals, Inc., of Richmond, California. I received a Doctorate in Biochemistry, from the University of California, Berkeley, in 1978.
2. I have read and understood the arguments in the outstanding Office Action of January 30, 1997, in which the Examiner is rejecting the claims because the Examiner believes they cover in vivo gene therapy, an "unpredictable and undeveloped field."
3. In my capacity as Director, Regulatory Affairs and Clinical Operations, I was charged with seeking advice from the Office of Recombinant DNA Activities, National Institutes of Health, regarding the regulatory status of the adenovirus ONYX-015. Particularly, I sought to determine if ONYX required approval from RAC before ONYX-015 could be used in human clinical trials. To this end, I drafted and sent two letters to Dr. Nelson Wivel, Director of RAC, (see Exhibit I), describing the generation and properties of ONYX-015. To each letter he responded that ONYX-015 does not have to be reviewed by RAC (see Exhibit II). Please note that in my letter of August 11, 1995, page 3, section 4, I explicitly recited to Dr. Wivel that the NIH guidelines cover "...recombinant DNA into human subjects (human gene transfer)..." His response, dated August 16, 1995, second paragraph, was that, "Since ONYX-015 does not meet the definition of a DNA recombinant, it is exempt from review on those grounds alone, and the consolidated review process established by the NIH and the FDA for human gene transfer protocols does not apply here. In conclusion, it appears that sole review by the FDA is appropriate for this circumstance."
4. In conclusion, based on my communications with Dr. Wivel, it is the position of RAC that ONYX-015 does not involve gene transfer, and thus implicitly is not considered gene therapy.

5. I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Date: June 26, 1997

By: Christopher A. Maack  
Christopher Maack, Ph.D.

ONYX PHARMACEUTICALS, INC.  
3031 Research Drive  
Richmond, California 94806  
Telephone (510) 262-8710